

What is claimed is:

1. A television system for suggesting scheduled television programs to a user comprising:

- 5 means for receiving television program schedule data comprising broadcast time and characteristics of scheduled programs;
 means for receiving characteristics data for a television program being viewed by a user;
 means for storing a table of characteristic weights for a user;
 10 means for periodically incrementing characteristic weights in said table based on said characteristics data for said television program being viewed by said user;
 user interface means for selecting a future time period and for requesting a list of suggested television programs scheduled to be broadcast during said future time period; and
 15 processor means for generating said list of suggested television programs by sorting said schedule according said characteristics of scheduled programs, said table of characteristics weights for said user, and any future time period selection.

2. The apparatus of claim 1 further comprising at least two alternate modes which are selectable using said user interface means wherein

- if a first mode is selected, programs having a plurality of characteristics wherein at least one of said plurality of characteristics has a zero weight in said table of characteristic weights for a user can be suggested, and
 if a second of said at least two modes is selected, programs having at least one
 25 characteristic which has a zero weight in said table are not suggested.

3. The apparatus of claim 2 wherein said characteristics are Topic and Theme in the format Topic_Theme, and wherein said first mode is selected, average weights for Topics in a program are added in calculating a program weight.

4. The apparatus of claim 2 wherein said first of said at least two modes is a default mode and said second of said at least two modes can be selected at said user interface.

5. The apparatus of claim 1 wherein said future time period is determined by a user
 35 selectable start time, stop time, and, optionally, broadcast day or days.

6. The apparatus of claim 4 further including user interface means for saving a selected future time period as a default.

7. The apparatus of claim 1 wherein said characteristics are Topic and Theme, and said television program schedule data and said characteristics data for said television program being viewed by said user include relevancy data, and said characteristics weights are the sum of the number of time periods a program having a Topic_Theme is viewed by a user times relevancy of said Topic_Theme.

8. The apparatus of claims 1 further including means to identify one of a plurality of users, means to store any mode selection and/or future time period selection of said identified user in a user profile.

9. The apparatus of claim 1 wherein one or more programs can be selected from said list of suggested programs displayed at said user interface and added to a user plan to view list.

10. A method for sorting a television program schedule to assist a user in selecting a television program for viewing or recording based on characteristics of television programs previously watched by said viewer comprising the steps of:

receiving a schedule of television programs to be broadcast comprising scheduled broadcast time and characteristics of said programs;

maintaining a user profile which comprises characteristics weights based on programs previously watched by said user;

allowing said user to select a future time period;

optionally allowing said user to select between a first mode wherein programs having a characteristic having a zero weight in said user profile can be suggested, and a second mode wherein programs having a characteristic having a zero weight in said user profile can not be suggested; and

generating a list of suggested television programs within any said selected future time period based on characteristics of scheduled television programs and characteristic weights in said user profile, according to any selected mode.

11. The method of claim 10 wherein said user may select a start time, and/or a stop time.

12. The method of claim 10 wherein a user selected time period can be saved as a default.

13. The method of claim 10 wherein a list of up to a predetermined number of programs meeting any user selected time period and desired characteristic criteria is displayed, in order of characteristic weights.

14. The method of claim 10 wherein upon sorting a list of suggested programs is displayed and a user may select a program from said list, whereupon said user is reminded of any selection from said list at or before the time said selected scheduled program is broadcasted.

15. The method of claim 10 wherein said characteristics comprise topics and themes and topic-theme relevance factors.

16. The method of claim 10 wherein characteristic weights are based on time watched and relevancy factors on a scale of 1 to 10 of characteristics of programs watched by a user.

17. The method of claims 10 wherein said characteristic weights are stored in counters which are incremented by a relevancy factor for each time period during which a user views a television program having a characteristic and a characteristic relevancy factor included in said program's broadcast information.

18. The method of claim 17 wherein said time period is five minutes and said counters are incremented by said relevancy factor upon expiration of each said time period.

19. The method of claim 10 further including providing allowing said user to select between at least two modes which correspond to separate sorting algorithms;

wherein if a first of said at least two modes is selected, programs having a plurality of characteristics wherein at least one of said plurality of characteristics has a zero weight can be suggested, and

wherein if a second of said at least two modes is selected, programs having at least one characteristic which has a zero weight in said user profile are not suggested.

20. The method of claim 19 wherein said first of said at least two modes is a default mode and said second of said at least two modes may be selected at said user interface.

21. The method of claim 19 wherein a weighting algorithm is defined by the formula

$$Wp = (Rel1 * Cth1 + Rel2 * Cth2 + \dots + Reln * Cthn) + C2 * (Ct1 + Ct2 + \dots + Ctn)$$
 wherein:

Wp is the weight for a program in a program schedule guide;

Cth1, Cth2 . . . Cthn are the values in the counters in the user profile for Topic_Themes that the program belongs to;

Rel1, Rel2 . . . Reln are the corresponding relevancies assigned by DirecTV for the Topic_Themes in the program, p;

Ct1, Ct2 . . . Ctn are the average weights for the Topics in the program;

$Ct1 = (Cth11 + Cth12 + \dots + Cth1m)/m$;
Cth11 is the counter value for Topic 1_Theme 1, Cth12 is the counter value for Topic1_Theme2, . . . Cth1m is the counter value for Topic1_Theme m;

m is the Theme number in the first Topic;

$Ctn = (Cthn1 + Cthn2 + \dots + Cthnp)/p$;

Cthn1 is the counter value for Topic n_Theme 1;

Cthn2 is the counter value for Topic n_Theme 2, . . .

Cthnp is the counter value for Topic n_Theme p;

p is the Theme number in the nth Topic; and

in said first mode, C2 is set to 1; and

in said second mode, C2 is set to 0 and if any Topic_Theme counters corresponding to Topic_Themes in a program, p, are 0, then Wp=0.